5) Proofed *(handwritten)*

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        RAW SEQUENCE LISTING            DATE: 10/09/2001
        PATENT APPLICATION:  US/09/589,288    TIME: 14:41:27

        Input Set : N:\Crf3\RULE60\09589288.txt
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 3 <110> APPLICANT: Yu et al.
 5 <120> TITLE OF INVENTION: Neutrokine-alpha and Neutrokine-alpha Splice Variants
 7 <130> FILE REFERENCE: PF343P3
 9 <140> CURRENT APPLICATION NUMBER: 09/589,288
10 <141> CURRENT FILING DATE: 2000-06-08
12 <150> PRIOR APPLICATION NUMBER: 09/507,968
13 <151> PRIOR FILING DATE: 2000-02-22
15 <150> PRIOR APPLICATION NUMBER: 60/122,388
16 <151> PRIOR FILING DATE: 1999-03-02
18 <150> PRIOR APPLICATION NUMBER: 60/124,097
19 <151> PRIOR FILING DATE: 1999-03-12
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57 <150> PRIOR APPLICATION NUMBER: 60/171,108
58 <151> PRIOR FILING DATE: 1999-12-16
60 <150> PRIOR APPLICATION NUMBER: 60/171,626
61 <151> PRIOR FILING DATE: 1999-12-23
63 <150> PRIOR APPLICATION NUMBER: 60/176,015
64 <151> PRIOR FILING DATE: 2000-01-14
67 <160> NUMBER OF SEQ ID NOS: 38
69 <170> SOFTWARE: PatentIn Ver. 2.1
71 <210> SEQ ID NO: 1
72 <211> LENGTH: 1100
73 <212> TYPE: DNA
74 <213> ORGANISM: Homo sapiens
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 77 <221> NAME/KEY: CDS
 78 <222> LOCATION: (147)..(1001)
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 83 atcaacaaac acagataaca ggaaatgatc cattccctgt ggtcacttat ctaaaggcc 120
 85 ccaaccttca aagttcaagt agtgat atg gat gac tcc aca gaa agg gag cag 173
 86                             Met Asp Asp Ser Thr Glu Arg Glu Gln
 87                              1                   5
 89 tca cgc ctt act tct tgc ctt aag aaa aga gaa gaa atg aaa ctg aag 221
 90 Ser Arg Leu Thr Ser Cys Leu Lys Lys Arg Glu Glu Met Lys Leu Lys
 91  10              15                  20                  25
 93 gag tgt gtt tcc atc ctc cca cgg aag gaa agc ccc tct gtc cga tcc 269
 94 Glu Cys Val Ser Ile Leu Pro Arg Lys Glu Ser Pro Ser Val Arg Ser
 95              30                  35                  40
 97 tcc aaa gac gga aag ctg ctg gct gca acc ttg ctg ctg gca ctg ctg 317
 98 Ser Lys Asp Gly Lys Leu Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu
 99              45                  50                  55
101 tct tgc tgc ctc acg gtg gtg tct ttc tac cag gtg gcc gcc ctg caa 365
102 Ser Cys Cys Leu Thr Val Val Ser Phe Tyr Gln Val Ala Ala Leu Gln
103              60                  65                  70
105 ggg gac ctg gcc agc ctc cgg gca gag ctg cag ggc cac cac gcg gag 413
106 Gly Asp Leu Ala Ser Leu Arg Ala Glu Leu Gln Gly His His Ala Glu
107       75                  80                  85
109 aag ctg cca gca gga gca gga gcc ccc aag gcc ggc ctg gag gaa gct 461
110 Lys Leu Pro Ala Gly Ala Gly Ala Pro Lys Ala Gly Leu Glu Glu Ala
111  90                  95                  100                 105
113 cca gct gtc acc gcg gga ctg aaa atc ttt gaa cca cca gct cca gga 509
114 Pro Ala Val Thr Ala Gly Leu Lys Ile Phe Glu Pro Pro Ala Pro Gly
115                  110                 115                 120
117 gaa ggc aac tcc agt cag aac agc aga aat aag cgt gcc gtt cag ggt 557
118 Glu Gly Asn Ser Ser Gln Asn Ser Arg Asn Lys Arg Ala Val Gln Gly
119                  125                 130                 135
121 cca gaa gaa aca gtc act caa gac tgc ttg caa ctg att gca gac agt 605
122 Pro Glu Glu Thr Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser
123              140                 145                 150
125 gaa aca cca act ata caa aaa gga tct tac aca ttt gtt cca tgg ctt 653
126 Glu Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu
127      155                 160                 165
129 ctc agc ttt aaa agg gga agt gcc cta gaa gaa aaa gag aat aaa ata 701
130 Leu Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn Lys Ile
131 170                 175                 180                 185
133 ttg gtc aaa gaa act ggt tac ttt ttt ata tat ggt cag gtt tta tat 749
134 Leu Val Lys Glu Thr Gly Tyr Phe Phe Ile Tyr Gly Gln Val Leu Tyr
135                  190                 195                 200
137 act gat aag acc tac gcc atg gga cat cta att cag agg aag aag gtc 797
138 Thr Asp Lys Thr Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val
139                  205                 210                 215
141 cat gtc ttt ggg gat gaa ttg agt ctg gtg act ttg ttt cga tgt att 845
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RAW SEQUENCE LISTING   DATE: 10/09/2001
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Input Set : N:\Crf3\RULE60\09589288.txt
Output Set: N:\CRF3\10092001\I589288.raw

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142 His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile
143         220             225             230
145 caa aat atg cct gaa aca cta ccc aat aat tcc tgc tat tca gct ggc    893
146 Gln Asn Met Pro Glu Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly
147         235             240             245
149 att gca aaa ctg gaa gaa gga gat gaa ctc caa ctt gca ata cca aga    941
150 Ile Ala Lys Leu Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg
151 250             255             260             265
153 gaa aat gca caa ata tca ctg gat gga gat gtc aca ttt ttt ggt gca    989
154 Glu Asn Ala Gln Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala
155                 270             275             280
157 ttg aaa ctg ctg tgacctactt acaccatgtc tgtagctatt ttcctccctt       1041
158 Leu Lys Leu Leu
159             285
161 tctctgtacc tctaagaaga aagaatctaa ctgaaaatac caaaaaaaaa aaaaaaaaa   1100
164 <210> SEQ ID NO: 2
165 <211> LENGTH: 285
166 <212> TYPE: PRT
167 <213> ORGANISM: Homo sapiens
169 <400> SEQUENCE: 2
170 Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu
171 1               5               10              15
173 Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro
174         20              25              30
176 Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
177         35              40              45
179 Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val
180     50              55              60
182 Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
183 65              70              75                  80
185 Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly
186             85              90                  95
188 Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu
189         100             105             110
191 Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn
192         115             120             125
194 Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln
195     130             135             140
197 Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys
198 145             150             155                 160
200 Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser
201             165             170             175
203 Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr
204         180             185             190
206 Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met
207         195             200             205
209 Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu
210     210             215             220
212 Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu
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Input Set : N:\Crf3\RULE60\09589288.txt
Output Set: N:\CRF3\10092001\I589288.raw

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213 225                    230                235               240
215 Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly
216                    245                250               255
218 Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu
219                    260                265               270
221 Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
222         275                280                285
226 <210> SEQ ID NO: 3
227 <211> LENGTH: 233
228 <212> TYPE: PRT
229 <213> ORGANISM: Homo sapiens
231 <400> SEQUENCE: 3
232 Met Ser Thr Glu Ser Met Ile Arg Asp Val Glu Leu Ala Glu Glu Ala
233   1             5                10                  15
235 Leu Pro Lys Lys Thr Gly Gly Pro Gln Gly Ser Arg Arg Cys Leu Phe
236             20                25                30
238 Leu Ser Leu Phe Ser Phe Leu Ile Val Ala Gly Ala Thr Thr Leu Phe
239         35                40                45
241 Cys Leu Leu His Phe Gly Val Ile Gly Pro Gln Arg Glu Glu Phe Pro
242     50                55                60
244 Arg Asp Leu Ser Leu Ile Ser Pro Leu Ala Gln Ala Val Arg Ser Ser
245 65                70                75                  80
247 Ser Arg Thr Pro Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro
248             85                90                95
250 Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu
251             100                105                110
253 Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu Val Val Pro Ser
254         115                120                125
256 Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly
257     130                135                140
259 Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala
260 145            150              155                160
262 Val Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala Ile Lys Ser Pro
263             165                170                175
265 Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu
266             180                185                190
268 Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Arg Leu
269         195                200                205
271 Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe Ala Glu Ser Gly
272     210                215                220
274 Gln Val Tyr Phe Gly Ile Ile Ala Leu
275 225                230
278 <210> SEQ ID NO: 4
279 <211> LENGTH: 205
280 <212> TYPE: PRT
281 <213> ORGANISM: Homo sapiens
283 <400> SEQUENCE: 4
284 Met Thr Pro Pro Glu Arg Leu Phe Leu Pro Arg Val Arg Gly Thr Thr
285   1             5                10                15
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Input Set : N:\Crf3\RULE60\09589288.txt
Output Set: N:\CRF3\10092001\I589288.raw

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287 Leu His Leu Leu Leu Leu Gly Leu Leu Leu Val Leu Leu Pro Gly Ala
288             20                  25                  30
290 Gln Gly Leu Pro Gly Val Gly Leu Thr Pro Ser Ala Ala Gln Thr Ala
291             35                  40                  45
293 Arg Gln His Pro Lys Met His Leu Ala His Ser Thr Leu Lys Pro Ala
294     50                  55                  60
296 Ala His Leu Ile Gly Asp Pro Ser Lys Gln Asn Ser Leu Leu Trp Arg
297 65                  70                  75                  80
299 Ala Asn Thr Asp Arg Ala Phe Leu Gln Asp Gly Phe Ser Leu Ser Asn
300             85                  90                  95
302 Asn Ser Leu Leu Val Pro Thr Ser Gly Ile Tyr Phe Val Tyr Ser Gln
303             100                 105                 110
305 Val Val Phe Ser Gly Lys Ala Tyr Ser Pro Lys Ala Thr Ser Ser Pro
306             115                 120                 125
308 Leu Tyr Leu Ala His Glu Val Gln Leu Phe Ser Ser Gln Tyr Pro Phe
309     130                 135                 140
311 His Val Pro Leu Leu Ser Ser Gln Lys Met Val Tyr Pro Gly Leu Gln
312 145                 150                 155                 160
314 Glu Pro Trp Leu His Ser Met Tyr His Gly Ala Ala Phe Gln Leu Thr
315             165                 170                 175
317 Gln Gly Asp Gln Leu Ser Thr His Thr Asp Gly Ile Pro His Leu Val
318             180                 185                 190
320 Leu Ser Pro Ser Thr Val Phe Phe Gly Ala Phe Ala Leu
321             195                 200                 205
324 <210> SEQ ID NO: 5
325 <211> LENGTH: 244
326 <212> TYPE: PRT
327 <213> ORGANISM: Homo sapiens
329 <400> SEQUENCE: 5
330 Met Gly Ala Leu Gly Leu Glu Gly Arg Gly Gly Arg Leu Gln Gly Arg
331     1                  5                  10                  15
333 Gly Ser Leu Leu Leu Ala Val Ala Gly Ala Thr Ser Leu Val Thr Leu
334             20                  25                  30
336 Leu Leu Ala Val Pro Ile Thr Val Leu Ala Val Leu Ala Leu Val Pro
337     35                  40                  45
339 Gln Asp Gln Gly Gly Leu Val Thr Glu Thr Ala Asp Pro Gly Ala Gln
340     50                  55                  60
342 Ala Gln Gln Gly Leu Gly Phe Gln Lys Leu Pro Glu Glu Glu Pro Glu
343 65                  70                  75                  80
345 Thr Asp Leu Ser Pro Gly Leu Pro Ala Ala His Leu Ile Gly Ala Pro
346             85                  90                  95
348 Leu Lys Gly Gln Gly Leu Gly Trp Glu Thr Thr Lys Glu Gln Ala Phe
349             100                 105                 110
351 Leu Thr Ser Gly Thr Gln Phe Ser Asp Ala Glu Gly Leu Ala Leu Pro
352             115                 120                 125
354 Gln Asp Gly Leu Tyr Tyr Leu Tyr Cys Leu Val Gly Tyr Arg Gly Arg
355     130                 135                 140
357 Ala Pro Pro Gly Gly Gly Asp Pro Gln Gly Arg Ser Val Thr Leu Arg
358 145                 150                 155                 160
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VERIFICATION SUMMARY   DATE: 10/09/2001
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Input Set : **N:\Crf3\RULE60\09589288.txt**
Output Set: **N:\CRF3\10092001\I589288.raw**

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L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:504 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:690 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:692 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:694 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
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L:787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
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L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:1385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:1409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
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